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The Pathology of Nephritis.

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It is with feelings of trepidation that I appear before this society to discuss the familiar topic, nephritis.

My only desire is to so associate the various manifestations of nephritis with their corresponding pathological lesions as to add new interest to this line of investigation, and also to emphasize the importance of urinary analysis in all suspected cases.

My subject is more properly the pathology of nephritis.

I trust you will not think I am wasting time if I refer to the normal anatomy, histology and physiology of the kidneys.

The kidneys are situated in the loins; are on either side of the vertebral column, extending from the upper border of the twelfth dorsal to the level of the third lumbar vertebra; the right being about three-fourths of an inch lower than the left.

They are characteristic in form, being flattened on the sides and having a hollow in one part of the circumference. Through this hollow or hilum the vessels, nerves and duct enter the kidney. The vein being in front, the artery in the middle, and the duct behind and below. Knowing this relation and also that the posterior surface of the kidney is flattened, while its anterior surface is more or less rounded, we can easily distinguish the right from the left kidney after their removal from the body.

The kidney is about four inches in length, two and one-half inches in breadth, and about one inch in thickness, and weighs from four to six ounces. The weights of the two kidneys bearing the ratio to the entire body of one to 240.

STRUCTURE.

The kidney is enveloped in a strong capsule of fibrous tissue which in health may be easily stripped off. Beneath this is a thin layer of unstriped muscular fiber, forming an incomplete covering to the organ. Beneath this we find the kindey substance proper. In the center of this mass of kidney substance we find a cavity called the sinus. This is but an expansion of the ureter which enters the kidney through the hilum.

The first part or funnel portion of this expansion being called the pelvis. The central cavity or sinus generally has two or three projections which again subdivide into what has been termed calices, into which project small conical portions of the kidney mass, which constitute the papillæ of the so-called Malpighian pyramids, the bases of which rest on the cortical portion.

The kidney substance proper consists of two portions—an outer investing part or cortical portion, and an inner or medullary portion. The former is bright reddish brown in color, granular and soft; the latter is pale red in color and consists of from eight to eighteen striated conical masses called the pyramids of Malpighii. These two portions, though dissimilar in appearance, consist of similar structures. An analogy might be found in the gray and white matter of the central nervous system. The cortical portion of the kidney corresponding to the gray and the medullary portion to the white matter of the brain.

However, both portions are made up largely of uriniferous tubules, bound together by a connective tissue stroma and arranged in a peculiar way, each tubule beginning in a spherical closed sac—the Malpighian capsule—and terminating in

the apex of the Malpighian pyramid. It is simply the arrangement of these tubules in the medullary portion that gives the conical appearance to this part.

Beginning at the mouth of one of these uriniferous tubes, we first trace it in straight course from the apex to the base of the Malpighian pyramid. In its course it gives off numerous branches which again subdivide; all the branches, however, running parallel to the original stem.

Tracing further its course for a varying distance into the cortical portion of the kidney, we come to the terminal branches which have an extremely circuitous course. Each portion of this terminal branch has received a distinctive name. The first portion being styled the curved collecting tubule; second, the distal convoluted tubule; third, the irregular tubule; fourth, the ascending limb of Henle's loop; fifth, the descending limb of Henle's loop; sixth, the spiral tubule of Schachowa; seventh, the proximal convoluted tubule; eighth, the neck, and, finally, the Malpighian corpuscle or body.

The most significant facts in regard to this terminal branch are its irregular course, its varying size, and the difference in the cells of its epithelial lining. These three facts have great pathological significance in Bright's disease.

The Malpighian bodies themselves are small rounded masses about 1-120 inch in diameter, and consist of a tuft of capillary bloodvessels called a glomerulus, surrounded by a membranous envelope known as the capsule of Bowman. This capsule has a lining of epithelial cells which below is continuous with the lining of the tubules, and which above is reflected over the tuft of capillaries in a manner analogous to the reflection of the decidua reflexa over the impregnated ovum.

Here in this closed sac we have the beginning of a tube which is in direct communication with the outer world.

A single layer of epithelial cells and a capillary wall form the one partition between the blood and the interior of the capsule.

The arteries supplying the kidneys come directly from the abdominal aorta and are of considerable size. They also enter the kidney through the hilum, breaking up into numerous branches which enter the kidney substance between the pyramids, and continue in a straight course until they reach the cortical portion. Here they turn directly at right angles and form what is known as the vascular zone. From this zone small vessels pass parallel to the tubules, distributing capillaries to form the numerous glomeruli. As before stated, each glomerulus is composed of a tuft of capillary bloodvessels having one afferent and one efferent vessel.

The nerve supply to the kidney is chiefly provided by the renal branches of the semilunar ganglia, the solar plexus, the lesser and smallest splanchnic, and the aortic plexus.

The nerve supply is quite significant from the fact that it is almost wholly derived from the sympathetic system, and second, that it contains some branches of the pneumogastric nerve.

Of the lymphatics of the kidneys we unfortunately know but little.

PHYSIOLOGY.

The function of the kidney is to separate from the blood certain waste products which together with varying amounts of water and salts we call urine.

The average composition of human urine has been determined to be about as follows. Of every 1,000 parts there are water 950; organic matter, 37.6; inorganic matter, 12.4. Of the organic matter urea constitutes four-fifths, and of the inorganic, two-thirds is sodium chloride. The exact mode in which the urine is separated from the blood is still unsettled, but it is quite probable that Bowman's theory is the correct one, viz.: The watery elements of the urine and perhaps the salts are separated from the blood in the glomeruli, whereas the cells lining the uriniferous tubules furnish the organic constituents which unite in solution with the water, and thus form normal urine.

Normal urine is yellow or pale amber in

color; usually acid in reaction when first voided, due to the presence of acid salts, principally to acid sodium phosphate. Its specific gravity varies from 1015 to 1025. The average being about 1018.

The average quantity of urine voided per day is about forty fluid ounces, but varies greatly, depending upon the season of the year, the clothing, the diet and many other modifying circumstances.

I have intentionally dwelt upon this picture of the normal kidney and normal urine in order that any departures from this healthy state may be more strikingly contrasted, and that pathological lessons may be more easily described.

After this review of the structure and function of these excretory organs, let us now note the modifications in structure and the changes in function that they undergo in the various forms of nephritis.

In this paper I shall exclude simple congestion of the kidney and amyloid kidney, both of which belong to the complete picture of this disease.

Four forms of Bright's disease are generally recognized by pathologists, viz.: (1) acute parenchymatous nephritis; (2) large white kidney; (3) fatty and contracted kidney; (4) cirrhotic kidney.

Unfortunately much confusion has arisen among the profession on account of the multiplicity of terms used in describing the same form of the disease. In order to escape any misunderstanding in this direction, I shall endeavor to give the leading synonyms employed by various authors to designate each form.

Acute parenchymatous nephritis has no less than one dozen synonyms by which it has been designated, viz.: (1) acute nephritis; (2) acute catarrhal nephritis; (3) acute desquamative nephritis; (4) acute croupous nephritis; (5) acute scarlatinal nephritis; (6) acute diffuse nephritis; (7) acute glomerular nephritis; (8) acute tubular nephritis; (9) acute exudative nephritis; (10) acute productive nephritis; (11) acute Bright's disease; (12) acute parenchymatous metamorphosis.

This form is more frequently met with in children and young adults. It is a common complication in all the exanthematous diseases, especially in scarlet fever. It may be the result of sudden chilling of the surface, such as we experience in our Kansas climate, thereby throwing excessive work upon the kidneys. Severe burns often operate in the same way. Certain irritant poisons are responsible for many cases, and it may also arise as a complication in many of the septic and contagious diseases.

The kidney of acute parenchymatous nephritis is usually enlarged, red and congested. The capsule is of normal thickness and easily stripped off.

A cut surface does not show any marked change.

Under the microscope the cells appear enlarged, the nuclei exceedingly prominent and degenerative changes are marked, consisting chiefly of cloudy swelling, fatty change and hyaline degeneration.

Interstitial changes are frequently present in the form of a round-celled infiltration about the capsules and between the convoluted tubules.

The lumen of the tubules becomes occluded, and by constant pressure the tubules are distorted in their arrangement, the terminal branches becoming even more circuitous in their course and the straight tubules becoming tortuous.

As this fatty metamorphosis continues, many of the epithelial cells fall from their places in the lining of the tubules and become incorporated in the albuminous casts which occupies the lumen, thus exposing the basement membrane.

Blood cells also generally find their way by diapedesis through the capillary walls, both into the urine and into these albumenous casts, which are finally swept out of their places by the pressure of the water behind them. The urine is very much diminished in quantity and the specific gravity is high. It is smoky or even bloody in color, and contains a large amount of albumen, whereas the amount of urea is greatly diminished.

The microscope reveals blood cells, blood and epithelial casts and narrow hyaline

casts. A prominent symptom of this form of Bright's disease is the extreme dropsy present, amounting oftentimes to complete anasarca.

The second form of Bright's disease is that which I have termed the large white kidney. This is properly the early stage of a chronic parenchymatous nephritis, and its symptoms are almost identical with those which are applied to the acute form with the exception that the word acute is replaced by the words early chronic.

This form is frequently the outcome of an acute attack. Pregnancy furnishes many of this class of cases, and alcohol figures largely in the production of the large white kidney.

This form is most common in adults under forty years of age, and males are more subject to the affection than females.

Macroscopically, the kidney is very large and white. The capsule is thin and easily removed. A cut section is yellowish white in color, due to fatty changes.

A microscopic section reveals extensive granular and fatty changes in the cells lining the tubules, while the tubules themselves are distended with the swollen cells and the albuminous plugs, which fill the lumen of the tubes.

The quantity of urine voided is about normal, containing much albumen and a deficiency of urea, though not so marked as in acute nephritis. Its color may be slightly cloudy or normal. Under the microscope broad casts of hyaline material are dimly outlined. Others have deposited within them the epithelial cells of the tubules, and still others present a dark granular appearance. Dropsy is also a prominent symptom of this form.

The fatty and contracted kidney is but a later stage of the early chronic form, and is described by similar terms, employing the adjectives late chronic for early chronic, viz.: late chronic parenchymatous nephritis, etc. It is also described as fatty and contracted kidney.

Its etiology is the same as the foregoing, but its pathology is widely different.

The morbid anatomy of the kidney will be spoken of when contrasted with the cirrhotic kidney with which it is often confounded.

The quantity of urine is increased, the specific gravity lower and the color pale or slightly opaque. It contains but little albumen. The amount of urea is still below the normal. Broad epithelial casts, compound granular cell casts and oily casts are present. Dropsy is seldom present except in the final stages.

The cirrhotic kidney stands unrelated to any of the preceding forms, both in its etiology and in its pathology. Its synonyms are chronic intestinal nephritis, granular kidney, red granular kidney, primary contracted kidney, gouty kidney and renal sclerosis. It is a disease peculiar to old age. Its onset is extremely gradual and often no cause can be assigned. Cystitis, urinary calculi, gonorrhœa, gout and syphilis, heredity and dietetic influences furnish the leading causes of this form. It is probable that alcohol has but little to do in the production of the cirrhotic kidney, although authorities differ on this point.

The quantity of urine is very much increased. Its specific gravity very low, often reaching 1003 or even 1002. It is often colorless, and contains no albumen or but a slight trace. Urea is present also in traces. The casts present are narrow waxy, hyaline or pale granular.

As widely separated as this form seems to be from the fatty and contracted kidney, still the diagnosis is often doubtful.

I am indebted to the late Dr. Henry Formad, of Philadelphia, for the following points of difference between the fatty contracted kidney and the cirrhotic kidney. In the former the contraction of the kidney is secondary, in the latter is primary. In the former the size is seldom below the normal, in the latter it is often reduced to one-half or even to one-fourth its size. In the former the capsule is adherent only in places, seldom thickened, the surface sometimes lobulated, but often smooth; its color pale, mottled or yellow. In the latter the capsule is adherent and thickened. The surface of

the kidney is granular and rough, its color is red or greyish red.

In the fatty kidney, cysts are present, but usually large and seldom numerous. The pelvis is rarely dilated.

Arterial changes are rare or not pronounced, the cortex often being normal in size or atrophied very late.

In cirrhotic kidney the cysts are small-sized and numerous, the pelvis is often dilated and arterial changes are almost invariably present, and the cortex is much atrophied.

In fatty and contracted kidney the renal epithelium is much swollen, desquamating freely, and often in a state of fatty degeneration, but cells are always visible and compound granular cells are present. The tube casts are epithelial, dark granular and contain compound granule cells, and, later, fat globules.

In cirrhotic kidney the renal epithelium never desquamates, though it undergoes fatty degeneration and becomes diminished in size and partly lost. The tube casts are hyaline, pale, granular and waxy, but never contain epithelial cells or any other kind of cells.

Dropsy is not a symptom of this form of Bright's disease. That which occurs just before death is probably due to failing compensation in the cardiac muscle. Sudden deaths are frequent in cirrhotic kidney.

All forms of Bright's disease are liable to terminate in uremia.

In this paper I have restricted my remarks to the generally accepted facts in regard to the etiology and pathology of this disease, but other facts, depending upon the anatomical arrangements and the histological structure of the kidney, as well as upon nutrition, blood pressure and possibly upon a specific micro-organism, may figure prominently in its production.

All are probably familiar with the ordinary clinical tests for albumen in Bright's disease; however, it will not be amiss to state that it is serum albumen that is found in Bright's disease.

Another form of soluble albumen often found is that embraced in the term peptones.

The insoluble albumens are the so-called globulins, including fibrinogen and fibrinoplastin, and the derived albumens, including casein, fibrin, amyloid substance and others.

Albuminuria does not always mean organic disease of the kidney. It often depends upon the diet or upon the administration of certain balsams, such as copaiba.

In order to arrive at a satisfactory diagnosis, it is essential that the quantity of urine per diem be measured. This is of importance in estimating the significance of a low or high specific gravity. There is but one means by which these various forms of Bright's disease may be accurately differentiated, and that is by the microscope. Casts occur in all forms, yet differing in each. The presence of kidney epithelium is quite as important as the presence of casts. These can easily be recognized, and are present only in the parenchymatous forms.

While I believe the microscope to be not only the most important means of diagnosis, but an absolute necessity, yet many cases require all the resources at our command in order, with certainty, to determine the character of the lesion.

The Plasmodium Malaria and Its Microscopical Diagnostication.

Read before the Golden Belt Medical Society at Salina, January 5, 1893.

By E. B. LAFEVER, M.D., Abilene, Kansas.

I shall preface my remarks by the conclusions formulated by Laveran in his latest contribution to the subject of the etiological factor concerned in the production of malarial disorders:

"1. The parasite (plasmodium malaria) has been found in all countries in the blood of those affected with the malarial poison, and the numerous descriptions of its appearance are remarkable for their identity.

"2. The parasite has never been found in the blood of those not affected with the malarial poison.

"3. The development of the parasite is

intimately connected with the production of melanæmia, which is the characteristic malarial lesion.

"4. The salts of quiniæ cause the parasite to disappear from the blood, and this takes place syncronously with the cessation of the fever.

"5. Malarial disease has been transmitted from one individual to another, by injecting into the veins of a non-malarious individual a small quantity of blood containing the parasite."

By a study of history we find that almost for a century there has now and then been a man sufficiently far-sighted and bold enough to venture a claim that malaria was caused by animate bodies.

Even so far back as 1845, Weir Michel, of Philadelphia, made the statement that he believed this disorder would ultimately be found to be caused by micro-organisms.

In 1866, Salisbury, of Ohio, discovered in the soil of malarious districts and afterwards cultivated a peculiar low form of vegetable life, which he was pleased to designate by the term "palmelæ" or "ague plant." For this he set forth the claim of its having a specific relation in the induction of ague.

Next came forward Klebs and Tommasi Crudeli, maintaining a bacillus, the B. malaria, which they found to abound in both the air and soil of the Campagna; but both the B. malaria and the palmelæ have been proven to be irresponsible.

So it was not until 1881 that the real organism, now universally known as the plasmodium malaria of Laveran was discovered. At this time he announced the finding within the red blood corpuscles of a peculiar amœboid body endowed with the properties of protoplasm and which he claimed was only found in the blood of individuals suffering from malarious disease, and with a very few exceptions this has been confirmed by Marchifava and Cella of Italy, by Osler, Sternberg, Councilman and Abbot of our own country, as well as all observers who have turned their attention in this direction, so that now we feel sure of the cause.

While the strict methods of bacteriology cannot in their entirety be applied (at least with our present methods) to malaria, proof as to the causal relation is stronger, it may be remembered, than for some parasites whose pathogenic nature is not questioned. All attempts at cultivating the plasmodium have proven futile; but, on the other hand, all inoculation experiments have been successful when made upon man, and all successful inoculations have been made by the injection of malarious blood from a diseased individual to one not so affected.

It is pretty generally agreed among biologists that the organism which gives rise to malaria belongs to that group of organisms known as the protozoa, and the plasmodium belongs to the subdivision of protozoa, known as the hæmatozoa.

Osler (Practice of Medicine, p. 143) says in the blood of patients suffering from malarial fevers the following forms of organisms may be seen: "(1) an unpigmented hyaline body within the red blood corpuscles which displays active movements; (2) a pigmented amœboid body within the red blood corpuscles which, under certain circumstances, may increase in size and form; (3) a segmenting body in which the protoplasm divides into a variable number of definite small spheres; (4) crescentic bodies—the so-called crescents which develop within the red blood corpuscles and form characteristic and distinctive structures; (5) flagellate organisms which may be seen to develop from the intercellular forms or from ovoid bodies which are altered crescents; (6) those consisting of free flagellæ.

Now it must be understood that these various forms given by Osler may not really be different organisms. It may be that they are or it may be the same organisms in the different parts of its cycle; that is to say, it may be that the same organism during its birth, growth, reproduction and death may assume these various phases given above. This part of the subject is as yet enshrouded in such dense darkness that we are in by no means a position to speak of it with anything like definiteness. I will have something to say later on in regard to the plausibility of a multiplicity of organisms.

In our present light we are unable chemico-biologically to separate one form of organism from the other, and from what knowledge we now possess upon the subject we are not able to say that they are anything but undifferentiated protoplasm, endowed with the properties common to all protoplasm, namely, contractibility, irritability, automaticity, receptivity, reproduction, etc.; or, in other words, the organism is born, lives, produces, fulfills its mission and succumbs to the inevitable in strict accordance to the universal laws of all life, be it animal or vegetable.

At first Laveran maintained that the plasmodium was to be found only within the red blood corpuscles, but at the present time all authorities hold this to be not true. From my very limited experience and from my reading, I am rather inclined to believe that at a certain period in the life-history of a plasmodium it does exist only within the red blood corpuscles, but at other times may be found in any portion of the blood tissue, but after all this is a field for excellent work, and one not at all understood.

Also at first it was said to always assume a crescentic shape and to be about one-third the size of a red blood corpuscle. This is also not true, for it may assume every imaginable shape, although during its period of rest a certain proportion of the organisms do rather incline to the crescent form. The size of the organism varies between very wide limits, being anywhere from one-tenth to eight or ten times the size of the red blood corpuscle.

In reality the shape and size of this body depends upon a vast variety of causes, some of which are: Its age, its stage in the cycle, its environments and probity, and a great number of minor causes of which we know nothing.

From what has preceded, you will see that we can with great propriety divide the life of the organism into two periods, namely, that of activity and that of rest or recuperation.

While I do not care to enter into the symptomatology of malaria, I may say that the period of rest of the organism corresponds precisely to the period existing between the paroxysmal attacks and the period of activity of the organism to the period of the paroxysm itself. This has been repeatedly demonstrated by every observer, so that there can be no possible doubt in regard to it.

Whether the plasmodium ever escapes from the bloodvessels and enters into the various tissues of the body is a question not as yet determined, but the vast probabilities are that it does not.

Let us look a little more closely at the organism itself, and what I am now about to say must be regarded as a general description of all organisms and thought of as though there were only one form of organism, but this organism passing through its various phases during its life, for only by taking this view of the subject can one correctly understand the subject at all.

As I have already told you, the plasmodium may be seen at certain times in all parts of the blood tissue. Fig. 1 shows a "field," copied from a slide which I made from a drop of blood taken from the finger tip of a boy ten years of age, suffering with quotidian intermittent, and it shows a typical picture of malarial blood, a picture which can in nowise be mistaken. There you will readily see organisms of various shapes, sizes and locations, pigmented and unpigmented. Fig. 2 shows a single organism and its changes in form during a period of five minutes. This I copied from a paper of Geo. Dock's, published in the *Philadelphia Medical News* for July, 1890. At times the organism appears as a colorless homogenous mass, at other times it contains within itself greater or less amounts of pigment granules, occasionally such quantities of pigment exist as to give the body a uniform colored aspect, even with moderately high powers. The origin of the pigment is the coloring matter of the blood. During the growth of the plasmodium it destroys a vast number of the red blood corpuscles and probably a certain number of the white ones, and in their destruction it takes unto itself, by that process known as incorporation, the pigment granules. A curious fact to be noted is that

these particles of pigment while in the bodies of the parasite are continually in motion. Dock makes the statement that it is a dancing motion, but the term dancing scarcely expresses it as it should. It is a motion only comparable to a constant up and down movement, and at the same time the particles assume a circular direction, seemingly beginning in small circles and constantly enlarging, like unto a pebble dropped into a still body of water — a never-ending series of circles.

Sometimes the pigment granules collect near the center of the organism, apparently concentrating themselves around the nucleus; that is, if the nucleus is central, which it very often is not, and then the pigment collects wherever the nucleus may be situated. At other times the coloring matter masses itself around the rim, leaving the center free from any color, and still at other times it is evenly distributed throughout the body. In some instances the plasmodiæ contain no coloring matter whatsoever, especially is this the case in specimens of blood taken from patients who have recently become infected. The direction of the pigment granules revolving in the circles has been, in my observation, from left to right. Whether they ever move in the opposite direction I am unable to say. The rapidity of movement of the pigment granules is in direct proportion to the activity of the plasmodium; that is to say, when the organism is the most active the movements of the granules are the most rapid, and *vice versa*.

The process of multiplication is by two methods: (1) by fission; (2) by budding. It would appear that multiplication may take place by either manner by any of the parasites. When the organism is very active and moving about with great rapidity, the first-named process is the most usual, but during its rest budding takes place most frequently. This parasite having a nucleus, its nucleus separates also, a portion of it going to each new-formed cell, as shown in Fig. 5; but when the method is by budding, the entire nucleus is transferred to the daughter cell, leaving the mother without a nucleus, as is very well shown in Fig. 4. Whether the mother cell has the power to reform a nucleus or not, or what becomes of it at all, is unknown.

The question of a nucleolus is *sub judice*, but I may say it is very doubtful if it has a nucleolus in the ordinary sense of the term.

The question of a cell membrane is by no means settled. By some it is claimed that a cell membrane does exist, by others that it never does, and by still others that sometimes it does and at other times not. The truth probably lies in the latter.

Its source of nutrition is the blood corpuscles, principally the red ones. The organism has the power of penetrating the corpuscle wall and taking unto itself the protoplasm therein contained, leaving only the corpuscle cell membrane.

We have next to consider the flagellate bodies and their formation.

Flagellæ are formed both on the mother and daughter cells. Fig. 3 shows very well the formation of a flagellæ on a mother cell. You will notice first the cell itself, next the projection of the wall, and third, a long tail attached to the cell.

If a cell, about to develop a tail, is closely watched under the microscope, there will first be seen an increasing rapidity of motion taking place in the pigment granules, and at the same time the granules have a tendency to concentrate themselves at the side of the rim about to give off the projection. While this process is going on, the nucleus moves over toward the same spot; but just before the flagellæ is given off, it moves to another part of the organism. Also with the movement of the pigment granules and the nucleus the margin of the plasmodium begins to undulate, at first very slowly, but these undulations increase until the whole organism is violently shaken, then pigment grains are ejected and the tail shoots out. It may be apparently retracted again, but at last rhythmically oscillates or lashes to a length of twenty or thirty micromillimeters. Not all of the filaments present so much commotion on their first appearance, as sometimes they appear on the side where there is very little motion. On an average it takes

about fifteen minutes for the development of a filament. The tails taken off sometimes very abruptly and other times very gradually.

The filaments generally contain pigment granules, especially when the cell is pigmented; sometimes it does not.

The method of formation of daughter cells with flagellæ is a somewhat different process. The beginning is the same—all the parts moving as above described—but after agitation for some little time a bud is formed which continues to enlarge and becomes pedunculated, the neck growing narrower and narrower until the new-formed body is completely severed from the mother cell, and at the same time of the separation the flagellæ shoots out. In the case of the daughter cell, the nucleus from the mother cell enters it and remains a part of the daughter cell, as is shown in Fig. 4.

There may be one or several buds begin at once and form daughter cells, but never unless the mother cell is multinuclear.

It has been determined that all cells having flagellæ show a greater resistance to specific or antiperiodic remedies, and on account of this fact and for other anological reasons the theory has been advanced that the development of these filaments and daughter cells are for the self-preservation of the organism itself in the manner as for instance the development of spores within the typhoid bacillus is for its preservation.

Some high authorities believe it possible for the plasmodium to effect its entrance into the blood by three different channels, namely: the digestive or respiratory tracts, or through the skin. It must certainly be received by one or all of these portals. I can readily conceive how it might enter through either or both of the two first-named channels, but when one considers the anatomical structure of the cuticle it would apparently be impossible for such to take place.

To return to the question of a unity or plurality of organisms, I may begin by saying that the majority of our best authorities are agreed upon a plurality, although we are by no means able to separate the one from the other, but from what we know of the life history of micro-organisms in general we are forced to the conclusion that there must be more than one form, else how are we to explain why one case of, say an intermittent, has a paroxysm every day, another every other day, and still a third every fourth day, etc.; or why one disease, coming under the head of malaria, should have a temperature curve, reaching normal, during a part of its cycle, and another disease, belonging to the same category, whose temperature curve daily rises and falls as does a remittent, but which fails to reach the normal during the cycle?

It is said by some that the differences might be explained by the different susceptibilities of the individual, by the environments of the organism, etc., but I scarcely think in the present light of bacterial knowledge that this is a satisfactory explanation.

As a rule we do not see a remittent and an intermittent develop together, nor do we find even a quotidian and a tertian form develop side by side. Generally in a certain locality either the remittent type or the intermittent form very largely predominate. In some localities the one at other places the other. As an example: In northern Illinois, where I spent the whole of one spring and summer, a part of the state abounding in small inland lakes and a great deal of stagnant water, in which there was decomposing a vast quantity of vegetable matter and a locality which was notoriously malarial.

I think during my stay there I must have seen from fifty to seventy-five cases of ague, and I do not remember to have met with even a single case of remittent among the entire number of cases, all of them being of the intermittent type; whereas here in Kansas I am informed that it is comparatively rare to see anything but the remittent form. Remember I am now applying rules and not exceptions. And, after all, why should there not be more than one form? For my part I think it the most rational and reasonable to suppose that each clinical form of malaria has a separate and distinct micro-organism,

an animate body capable only of producing effects peculiar to itself.

We all know there have been as many as fifteen to eighteen forms of bacteria endowed with the power to produce pus, no two of which giving identically the same products.

From the recent work of Shurley and Gibbs we are conclusively shown that there certainly is more than one form of the T. bacilli, and taking all things into consideration we are bound to admit that at the present time, possessed with the limited knowledge at our command, we have jumbled together several very distinct diseases all coming under the head of malaria, which only time and research can separate and define, and this can only be accomplished by the recognition of the etiological factor concerned.

Golgi has recently made some experiments and observations which have not been confirmed, but if they are ever thoroughly established, will be of great practical benefit. I reproduce them for what they may be worth. He says: "The typical intermittents are associated with the larger of the organisms, of which there are several forms, and he also describes two distinct forms for the tertian and quartan fevers, and one of his theories is that all forms of fevers depend upon combinations and modifications of these, and it has been noted by a great many observers that the more acute the attack, the larger the organism; and the more chronic, the less in size are the parasites.

The technique employed for the detection of the plasmodium in the blood is probably the most easily accomplished of any bacteriological work. First of all a good microscope is essential, one having good oculars and objectives, and whereas a one-tenth or one-twelfth oil emersion might be desirable, it is by no means indispensably necessary. Armed with a good one-eighth, any one can see all he possibly need to make an unquestionable diagnosis; and one having a reasonable amount of experience with the microscope, if no better lens is available, a one-sixth or one-fourth can be utilized to a good advantage. Then having the microscope and a few clear, clean and thin cover glasses and slides, and an ordinary sewing needle, one has all that is actually necessary for the examination. Although some staining reagent brings out the various tissues, etc., making them stand out boldly in their several parts, it can be dispensed with very readily. If a stain is used, it makes very little difference which one, as long as it is one of the anilines, of which there are a great many. Any of the reagents stain best in a dilute alcoholic solution; a mere trace of muriatic acid makes the stain deeper and more lasting. If too much acid is used, it will cause the corpuscles to shrivel, and thereby ruin the entire specimen, and is probably for beginners best let alone.

The best time for examining the blood is shortly before the expected paroxysm—say half an hour—as at this time the parasite is the most active and in the greatest number, so that they are more apt to be found than at another period in the cycle.

Take two cover glasses and with the needle puncture the end of the finger and squeeze a drop of blood out upon the cover glass, and with the second cover glass placed on top of first, press the two together. This is done in order to obtain as thin a layer as possible, and at the same time prevent the formation of rouloux; next slide the two cover glasses apart, grasp each glass by a pair of forceps and pass glass three times briefly through the flame of a spirit lamp in order to thoroughly dry the layer of blood, always remembering which side of the glass contains the specimen. Pour your staining reagent into a watch glass and float the cover glasses on the top of the stain, blood side downwards. Allow them to remain for about five minutes. Remove and wash in a dilute solution of alcohol, say one part to four of water, following this by washing in distilled water in order to rid the specimen of any remaining alcohol, and mount either in glycerine for temporary examination, or, if permanency is desired, use canada balsam, or, if desired, a double staining may be given the specimen, which will stain the parasite one color and all the other tissues

will be of a contrast stain. This is a more elaborate process, and practically need never be used.

It is always better to prepare several slides, for the reason that some might be ruined in their making or some specimen might happen to contain none of the parasites, although they may be in the blood in abundance, and it also gives one a better idea of the form of a parasite, and, lastly, it is scarcely more trouble to make a dozen than to make two.

If the parasite is not found at the first examination, there is very strong presumptive evidence that it does not exist, but one examination is not sufficient to positively establish a negative; several examinations must be made from blood taken at different periods in the cycle, and if the parasite is at all present, it will be found at one examination or the other. And if the clinical evidence points very distinctly to malaria, and you are still not able to demonstrate a parasite, and if the spleen is enlarged you are perfectly justified in withdrawing from that organ sufficient blood for an examination; and if the blood from the spleen fails to reveal the plasmodium you may rest assured that you have some other affection to deal with.

Address of Welcome.

Read before the Northeastern Kansas Medical and Protective Association at Muscotah, February 14, 1893,

By L. N. PLUMMER, M.D., Muscotah, Kansas.

Mr. President and Gentlemen Doctors: It has fallen to me the pleasant duty of giving you words of welcome. Not only as physicians, but as citizens, we bid you welcome. We have a special reason for being glad to see you to-day. Some persons, too well acquainted with us, have given our little city a bad name, and as a result of this we have been expecting a scourge or plague of some sort, but since it has come in such a mild shape as this, we are really glad to see you. We are a nice people here; in fact, take us individually, we are a very nice people, but take us collectively, we are about as hard a lot of citizens as were ever grouped together beneath a Kansas sun. And as a "fellow-feeling makes no wondrous kind," you will pardon me, doctors, when I repeat that we are truly glad to see you.

Our city is not remarkable for anything save the great piety and high culture of its resident physicians, and the anxiety of the rest of the world to become acquainted with them. We have here no stately cathedrals, no fine city halls, no elegant mansions, no architectural designs of great antiquity to show you, unless it is a few old mossback democrats, and even they are growing scarce; but we have one thing here, gentlemen, that we doctors point to with pride, and when we speak of it our bosoms thrill with emotion and bright hopes of the future, and that is our graveyard. If the deliberations of the day are not too prolonged, we will take you out to the hill beyond Poverty Ridge, and show you long rows of silent, misguided ones, who too fondly believed in medicine, and forgot to change doctors. As you gaze around you you may think that most of our work is underground; in fact, out of sight. But we know that your breasts will heave with envy, for you must think that these doctors have had an "awful lot to do." You may think that the city of our dead is greater than the city of our living, and that we have reversed the old rule wherein only one in twenty-eight, who are sick, die; and that we have allowed but one in twenty-nine or thirty escape the mutabilities of medical practice, and he only got away by going east to wife's folks. But, gentlemen, what else can a man of democratic or republican proclivities do in these alliance times to get even?

While you are gazing on the city of our silent ones, we want to call your attention to the long rows of neat headstones and elegant monuments, not erected to the memory of the silent one beneath, (for you know that the epitaph is but a parody on the sleeper below,) but monuments to the resident physicians. You may think this strange, but nevertheless 'tis true. When the administrator was settling up the estate of the unfortunate one, who forgot Shake-

speare's advice to throw his physic to his dog, we doctors, with a magnanimity that should call for cheers on every occasion, made out our bills in such a manner as to leave enough to mark the last resting place, hence those monuments are to our generosity.

And now, gentlemen, let me say again that we are glad to see you — so glad that we would like to billet you, while you stay with us, on those of our patients who never pay; and we trust that your plates would be filled as high as their unpaid bills. The resident physicians here have been pioneers in medicine in Kansas. We have been with you on the long, silent, lonely side at midnight, through rain and snow and mud, when the ray of hope in our breast that there would be a dollar at the end of the road proved to be but an irridescent dream. We have been with you again when the man, whose name was "Pants," paid his bill with a promptitude that almost astonished us into going to church and being good the rest of our lives. We have been with you when you felt in your coat pocket for even a smell of last year's tobacco, and found but vacancy. We have been with you when it was time to take something home for dinner, but the ebb-tide of your credit would not permit you to ask the butcher for another fifteen cents' worth of neck. We have known with you what it is to have half the world owing you, and you owe the other half. We have been with you in joy and sorrow, in sunshine and shadow; we have been so poor in surgical appliances that we have been compelled to perform resection of the tarsal bones with a pocket bistoury and a pair of tooth forceps; and we have been known to perform a capital operation — an amputation in fact — with a carpenter's tenet saw and an old knife, rubbed down to resemble a catlin. But times have changed for the better with us, and we trust it has with you; and now at times we own a real good second-hand pipe and a package of tobacco on the same day, and that paid for, and in consequence we are all standing up for Kansas with perhaps the too vain and idle regret that we cannot, with Brother Magee, of Topeka, hold a post-mortem on the legislative body now in session at his city.

If it were possible I think that every doctor present would ask for a head, as you all would like to know "what's the matter with those fellows, anyway"; but, doctors, I think that the one that took a stomach would be the first to find the seat of the disease.

And now, gentlemen, I am sorry that there are not more of you here. If it were so, our words of welcome would have been longer, but years ago we learned to temper our physic to the size of the body about to receive it. We trust that the deliberations of the day will be pleasant and fruitful of much good, and that when you go away you will take with you not anything that belongs to us, doctors, but pleasant recollections of our city and its people. It is our fervent wish that ere death the great Chloralamid of all your pains and the relief of your patients calls you to that land where frost and snow and cold weather is unknown, that each one of you will own just as big a graveyard as those doctors down at Muscotah. Again we bid you welcome.

PURULENT discharge from the middle ear will often yield to irrigation with warm water and drying. From one pint to one-half gallon of water should be used once or twice a day for one week if the patient endures it well, and then every second day if no discharge between times, and then every third day for another week or two, as indicated by the signs of moisture from the ear. The ear should be thoroughly dried each time.

WE are in receipt of the *Oklahoma Medical Journal*. It is published in Gutherie and edited by Drs. Pinquard, Halstead and Barker. It is a creditable little journal, and speaks well for the doctors. The physicians of the territory should assist this enterprise and undoubtedly will. Success to the enterprise.

SOCIETY PROCEEDINGS.

The Topeka Academy of Medicine and Surgery.

The society was called to order at 8 P. M.

Present: Drs. Magee, Mitchell, McCrea, McVey, Minney, Conger, Gilbert, Sheldon, Schenck, Metcalf, Cannon, Gundrie, Miner, Longshore, Pelton, Donaldson, O'Brien, Lindsay, Stewart, Warner, Lewis, Barnes, Powell and Rodgers.

Visiting brothers were invited to participate in discussion.

First paper was presented by Dr. McCrea on "Asiatic Cholera."

DISCUSSION.

Dr. Pelton.—"I am not prepared to open discussion on such an elaborate paper. I have never attended a case of Asiatic cholera, but have seen cases of American cholera resembling this disease. I cannot add anything to what has been said in regard to the bacilli and culture. In regard to treatment something might be said. The theory of stimulation has been advocated in this class of diseases, viz., cholera, typhoid, etc. We gain very little I think from this treatment, except a temporary bracing up. I would prefer the use of carbonate of ammonia or strychnia; from these we get a more tonic and permanent effect. The attempt by injection to supply the water which has been drained away seems to be futile. The intestinal tract is not in a condition to absorb. The current is established in the other direction; water draining from the vessels instead of toward them. By hypodermic injection I think we can more easily supply the fluids needed."

Dr. Magee.—"Cholera appears to be still alive in the old country, and does not seem to have abated. Municipal authorities in this country are becoming alarmed. There is a demand now for a government quarantine. We ought to-night to give our support to the action of the New York Academy in this matter. It was only stamped out last fall by severe measures.

"Dr. Gibier at some length explains the method of inoculation. Where it has been tried, about thirty-three per cent. recovered; where it was not, only three per cent. He says it is not necessary for the virus to be attenuated. It is first injected in guinea pigs and then the serum can be used from this directly to the patient. When injected subcutaneously in the pig, only one out of twenty die; while if introduced in intestinal tract, all die. This shows an affinity for the intestinal tract. The animals inoculated subcutaneously did not receive as great immunity as those by intestinal tract. Another experimenter has found the milk of the goat rendered immune, when taken will render immunity, but not if injected hypodermically. Director-General Davis does not credit the probability of cholera reaching this country, and says these men who ask federal aid are easily excited and needlessly alarmed."

Dr. Metcalf.—"I hesitate to say anything which might look like a criticism of so able a paper. I was particularly pleased with the paper and agree with all of the theories presented and the means for preventing the scourge. I once experienced a conflict with the disease at a time when it swept over the country, and the profession were poorly able to cope with the disease. Everything was crude. Many who fled from the disease and afterward returned were depressed with fear and succumbed to the disease. Our efforts should be directed to the prevention of the disease, though we may hope to more successfully contend with it than in years before."

Dr. Schenck.—"Notwithstanding Gen. Davis considers this a fad, I think the paper a timely one. There is nothing which so interferes with commerce as Asiatic cholera. If we don't have cholera here next year it will be because quarantines are better observed than they have been. The way of the wise men is to foresee such things and prevent by such means as science gives. What are the symptoms of Asiatic cholera? We don't need to examine the bacilli. It

wont we necessary to take your microscope; you will all know it. Its characteristics are so well marked we cannot mistake it. Have had a personal experience with it. The absorbents, exhalents and secretents all seem paralyzed. The shock seems to be upon the nervous system. When I stimulated the nervous system by mental and moral stimulants, I succeeded in curing eleven out of twelve of my cases. The suggestion of keeping the circulation full by means of the injection of saline solutions is very important. The first and most important prophylactic measure is cleanliness. When persons, surroundings and cities are kept clean and aseptic, free from filth, cholera has been prevented."

Dr. R. E. McVey.—"At the time referred to by Dr. Metcalf, several hundreds died of cholera, doctors and all. It started among the better class of people—the aristocratic and wealthy. Sixteen people died in one night. It might have been filth. Many went into tents, but it broke out in the tents. I don't believe it is confined to the poorer class of people. Those who waited upon the cholera patients drank all the whisky they could get, and it was then considered the best prophylactic."

Dr. Schenck.—"A single well has been frequently the source of many cases, and leaks have been traced to vaults where discharges from cholera patients were. It is certainly most common among the debauched, depressed and filthy."

Dr. Minney.—"No account should be taken of the opinion of Gen. Davis, but we should take heed to the opinions of those men who have studied it carefully. Would like to ask of those who have had experience if the cholera and typhoid fever occur in the conjunction."

Dr. Stewart.—"A practical point came to me in regard to the spread of the disease by means of water. I have noticed the typhoid cases I have had have come from those using well water, and there is hardly a well in the city which is one hundred feet away from a vault."

Dr. O'Brien.—"It was a very opportune thing to have this subject discussed. I hope we will not adjourn till we have done something tangible. Adopt resolutions which, published, will give heart to others in the work of prevention. The State Board of Health have already taken some measures in this direction. In answer to Dr. Minney: Cholera visited Kansas in 1866 at one of the forts, and I believe visited other portions of the state. We should try to interest authorities in cleaning up their cities and towns."

Dr. McCrea explained that entero-clisis was used to destroy the bacilli rather than supply nourishment. "Opium and calomel is not such ancient treatment, since some modern authors claim positive cures from its use. Alcohol is not shown by bacteriologists to be of benefit. It does not destroy the germ. It is also shown that an epidemic does not continue in the better classes, but in the lower classes it more readily recurs. I think we should have a federal quarantine."

Dr. O'Brien moved that a committee be appointed to draft resolutions embodying views of the body and urging means of prevention. Amended to make Dr. Schenck chairman.

The following committee was appointed: Drs. Schenck, Magee and O'Brien.

"Report of Case," by Dr. Stewart, with pathological specimen of kidneys, bladder and ureters.

Dr. Donaldson asked if cirrhosis of the liver was produced by over-eating. We know it is caused by alcohol. Does over-eating produce alcohol in the liver?"

Dr. R. E. McVey.—"May it not have been a trouble beginning in the arteries? It does not seem necessary that this should have resulted from over-eating or alcoholism. Starches and fats are not eliminated through the kidneys, but it is the albuminoids. The trouble may have been a septic condition of the blood."

Dr. Pelton.—"This trouble may arise from different causes, but I think it originates in the glomeruli and their epithelial lining, and then may involve the interstitial tissue. Over-eating may produce cirrhosis of liver, but it is generally considered an effect of alcohol."

Dr. Stewart.—"In reference to Dr. Pelton's argument, it is very good indeed. Our standpoints are different, however, and we are both right."

Capt. Rowley, representing the *Capital*, asked the society their opinion as to the fumigation of Clay school, in which cases of diphtheria had occurred.

The subject was discussed by all the members present, and it was finally decided that it was unnecessary to make any suggestions to the board of health as to the proper course in the matter.

The committee on resolutions, in regard to the cholera subject, reported as follows:

"WHEREAS, In the judgment of the Topeka Academy of Medicine and Surgery, the danger from a visitation of Asiatic cholera during the spring and summer is sufficiently imminent to warrant the thoughtful consideration of our people; and,

"WHEREAS, The director general of the World's Fair has sought to impress the people of America that there is no danger from an invasion of cholera, recognizing the unwisdom of commercial interests, seeking to conceal danger;

"*Be it resolved*, That we commend the action of the New York Academy of Medicine in memorializing congress for a governmental quarantine against an invasion of Asiatic cholera, and we would recommend that our state legislature adopt laws in harmony with the quarantine bill recently passed by congress as will enable the state to establish a local quarantine;

"*And further resolved*, That we request our city government to take such action as will secure our city against an invasion of cholera; and, lastly,

"*Be it resolved*, That a copy of these resolutions be sent to the New York Academy of Medicine, governor of the state of Kansas and the mayor of the city of Topeka.

"DR. R. S. MAGEE,
"DR. M. O'BRIEN,
"DR. W. L. SCHENCK,
Committee."

The report was adopted.

Dr. O'Brien offered an amendment to the by-laws, making the initiation fee $5.

W. E. MCVEY, M.D., *Secretary.*

YALE is now open to both sexes.

The N. E. K. M. & P. Association.

The society met in Masonic Hall, at Muscotah, Tuesday, February 14, 1893, at 2 P. M.

President Dr. S. E. Sheldon in the chair.

Minutes of last meeting read and approved.

Members present: Drs. Sheldon, Graham, Martin, Riggs, Plummer, Troughton, Moore, McClintock and Magee, and visiting physician, Dr. Wm. P. Badger, of Muscotah.

A new feature and a very pleasant one in our meeting was a welcome address by Dr. L. N. Plummer. It was richly enjoyed by the society. (The address is found in this number of the journal.)

Dr. Troughton, for the society, responded in an appropriate manner to the very cordial welcome received.

Dr. Riggs then read a paper entitled "A Mistake in Diagnosis." The sequel of the report, however, showed that the doctor had not missed the case very far, as the child got well. The case was one of a little boy, three and a half years old, in which the doctor had made three diagnoses. First, fits; second, malaria; and lastly, worms, which, when removed, relieved all the other symptoms.

Dr. Plummer, in discussion, said that he was acquainted with the case, and thought it one of interest.

Dr. McClintock said he considered the diagnosis not a mistake, but correct. Said that epilepsy was due to an irritation somewhere; may be in the brain or anywhere along the intestinal tract, or elsewhere. "Heredity is an important factor in the case, as the little fellow's uncle and aunt, and his grandfather on his mother's side, had a sister who was insane, if I remember correctly from the doctor's report. It is not always an easy matter to determine the exciting cause in a case of epilepsy."

Dr. Plummer thought the convulsions in this case due to an intestinal irritation. The child had a peculiar nervous temperament, ready to be thrown from its equilibrium on the slightest provocation.

Dr. Troughton.—"I had a case in my practice about four years ago which received

an injury on the side by falling from a wagon to the sidewalk. Following the injury, blood was passed from the bowels. In a short time a tumor in the region of the spleen appeared, which was thought possibly to be an enlarged spleen. On consultation with some others the tumor was thought to be due to malaria. The case was seen by Dr. Senn, who called it leucocythæmia. Six months ago the child began to pass worms; at one time sixteen feet of worm came away. This has not relieved the tumor nor the hemorrhage from the bowels. I am of the opinion that the presence of worms is not a disease *per se*, but a symptom of a diseased condition of the system."

Dr. Sheldon.—"I am persuaded that the doctor was correct in his first and last diagnosis, but am not sure of the second. Heredity is a predisposing cause, and only requires an irritation to start the epileptiform convulsions. Do not think it requires an organic lesion of the brain to bring on convulsions. There was in this case in all probability a weakened nervous condition. Children who have worms are not in a healthy condition—bloated appearance, distorted abdomens."

Dr. Graham.—"Worms in the nasal passages may produce spasms. Children which are predisposed to spasms have a weakened nervous system, poorly developed. The least disturbance will sometimes bring on a fit. I do not believe worms will affect a healthy child."

Dr. Sheldon now read a paper entitled "Inflammation," in which he considered the conditions found in a reparative process exactly similar to those found in inflammation, viz., heat, pain, swelling and redness. That inflammation is no longer a disease, as it was once considered, but it is Nature's reparative process. The paper was deeply interesting, and contained the latest possible researches.

Dr. Troughton.—"Am highly pleased with the paper. No pathological writer now speaks of inflammation as a disease. It is now considered a therapeutic measure and not a destructive agent. The white blood corpuscle is now considered the sworn enemy of the tubercle bacillus."

Dr. Magee.—"The white blood corpuscle was formerly considered a floating cell, simply, in the blood channels. It is now found that it is the prime factor in all life forces. It is the prime cell; from it springs the red blood corpuscle from nature's manufacturing establishment—the spleen. It is the enemy of all foreign material in the system. A foreign body enters and immediately it is pounced upon by these leucocytes and destroyed, or if too large or too firm, it is covered up—encapsulated. Dr. Sheldon has described how they escape from the vessels through the stomata in the walls to aid in the reparative process. They multiply rapidly by cell division karyokinesis. In all probability the white blood corpuscle transfers the food in the intestinal canal through the villi to the portal and lacteal circulations, and, lastly, the food after it is transferred to the blood current undergoes certain changes by means of these white blood corpuscles, through which medium it is prepared for its reception by each individual tissue of the body. Its destiny, when its life is ended, is the lymphatics."

Dr. McClintock.—"The paper contains the most advanced thought of to-day in the subject of inflammation. Inflammation is not now considered a destructive action, but a beneficial process. If we read the text-books of five years ago or less, inflammation is then called a disease. We must get away from our text-books and think for ourselves—independent thought. Text-books make slaves of us. Not until recently did we understand the therapeutic agency of fever; it is now considered nature's method of destroying the poison within."

Dr. Sheldon.—"Our text-books are behind our pathology. Inflammation is a physiological process. We can hardly conceive of a wound, no matter how small, healing without more or less infection, probably. Resistance to disease simply means taking on more nutrition. This is what I believe to be the best means of resisting disease. This is why we give cod-liver oil in tuberculosis or in any wasting disease."

The committee on program, Drs. Graham, McClintock and Troughton, reported the following program:

Pathology of Cholera.—Dr. S. G. Stewart, Topeka.

Discussion opened by Dr. P. R. Moore, Effingham.

Treatment of Cholera.—Dr. W. F. Troughton, Seneca.

Discussion opened by Dr. J. C. McClintock, Topeka.

Gastritis.—Dr. L. P. Paddock, Netawaka.

Discussion opened by Dr. S. M. Riggs, Muscotah.

Pneumonia and Its Treatment.—Dr. L. N. Plummer, Muscotah.

Discussion opened by Dr. J. W. Graham, Wetmore.

The society adjourned to meet in Topeka, the second Tuesday of April, 1893.

The society is under obligations to Dr. Riggs for the hospitable entertainment received.

Respectfully,

R. S. MAGEE, M.D.,
Secretary.

Ear-ache.

Steaming the ear will often give relief. Place the larger end or base of a cone of paper over the spout of the teakettle having the boiling water, and the apex of the cone as near the ear as possible, not to burn the patient, the patient lying with the affected ear downward with it sufficiently free to allow the steam to enter the canal. To be used from three to five minutes at a sitting, and as frequent as necessary.

Typhus Fever.

For the week ending February 4, 1893, forty-five cases of typhus fever with sixteen deaths were reported in New York City. Ten cases of typhoid fever were reported for the same time with four deaths. The percentage of death rate was greater in the latter than in the former disease.

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TOPEKA, KANSAS, MARCH, 1893.

New Doctors.

March is the doctor's month. The title of M.D. will be conferred upon thousands of medical students this month. Who hath woe, who hath tribulation, who hath headaches, who hath trepidation, more than the medical student who comes up for graduation? We all have had the experience and felt confident that it was the greatest obstacle to overcome in our lives; and so it is up to and including the ordeal of getting the diploma. And then—well—and then the trial and polishing and testing begins. Is the trial greater or the testing more severe than in other professions? No. Are there fewer opportunities for place and position? No. Are the chances for success equally as great? Yes.

By success is meant acquiring a home or competence, and doing good in the world—being of some benefit to the race.

The ideal of some persons is that in order

to be successful in the practice of medicine the physician must get rich. This is a mistake. "Riches are a superfluity of what a person does not need," and why a man should have such an excess before he can be accounted successful is one of the strange fads of the human mind, hard to eradicate and veiled by ignorance.

To the young doctor, then, (by young we mean recent in medicine,) we extend the right hand of fellowship, and welcome you into the profession of medicine. In the active practice of your profession, you will get a taste of the bitter with the sweet, but in the general averaging up, no more of the bitter, but rather more of the sweet than in other avocations and callings in life.

There is plenty of room for you at the top. Up there the scenery is more beautiful, the atmosphere more invigorating, the skies more lovely, the sunshine brighter, the inhabitants more appreciative. There is a greater breadth and depth and scope to your life. There will be more who will arise and call you blessed; not necessarily in a pecuniary sense, but in that broader, deeper humanitarian sense—a getting right with your fellow-man.

While you must begin at the bottom, do not stay there. You do not have to, and if you find there is a lacking of this inspiration within you to mount higher by the acquisition of more knowledge and in this way increase your usefulness in the world, step aside, and do not be a stumbling block to others.

To the new doctor—greeting.

"WHEN I was a young man," said Jonathan Gray,
"If a fellow took physic he knew it, you bet.
It would cramp him all up in a collicky way,
And, good Lord, what a twisting his insides would get!
But the pills in use now-days by sensible folks
Are as easy to take and as pleasant as jokes."

Commencement Exercises of the Kansas Medical College.

The commencement exercises of the Kansas Medical College will be held in the auditorium of the city library building on Tuesday evening, March 21, 1893.

President Quayle of Baker University will deliver the general address; Dr. W. S. Lindsay will address the class; Senator John Martin, president of the board of trustees, will confer the degrees; and Dr. M. B. Ward will be master of ceremonies.

This closes the third year of the school's existence, and the most successful one.

The first year there were twenty-three matriculations, the second year twenty-eight and this year thirty-five.

The demonstration has been repeated that Topeka furnishes abundant clinical and dissecting material for a medical college, and the physicians of the state have placed the school under obligation for their patronage and encouragement.

A Correction.

The report of the proceedings of the Topeka Academy of Medicine and Surgery, as printed in the February number, slightly misconstrued the description given by Dr. White of the Byford operation, and the following is furnished us in correction of the error:

"Ligate the broad ligaments; separate the bladder from the cervix; put on a temporary elastic ligature; transfix and cut off the mass above the ligature; remove the elastic ligature; sew up the stump edges; perforate the anterior vaginal fornix; turn the stump forward into the vagina, and retain it there with clamp forceps; sew the peritoneal edge that was separated along with the bladder from the anterior surface of the uterus to the posterior surface of the stump, so as to close off the peritoneal cavity from the vagina."

Work for the Gynecologist Among the Insane.

Dr. Rohe, in a paper read before the Gynecological and Obstetrical Society of Baltimore, expressed the belief that a careful examination by a competent gynecologist would show that at least fifty per cent. of all insane women had some form of pelvic disease.

FORMULARY of the Keeley bichloride of gold treatment, as given by Dr. Chauncey F. Chapman, of Chicago:

"No. 1. Tonic known in the institutes as the 'dope'.

℞

Aurii et sodii chlorid	grs. xij
Strychniæ nitr	gr. i
Atropiæ sulph	gr. ¼
Ammonii muriat	grs. vi
Aloin	gr. i
Hydrastin	grs. ij
Glycerine	℥ i
Ext. fld. cinchon. comp	℥ iij
Ext. fld. coca erythrox	℥ i
Aquæ dest	℥ i

M. Sig.: One drachm at 7, 9, 11 A. M.; at 1, 3, 5, 7, 9 P. M.

No. 2. The injection known in the institutes as the 'shot'.

℞

Strychniæ nit	grs. 9 1-10
Aquæ dest. ad	℥ iv

Potass. permangen. q. s. to color.

M. Sig.: Begin with gtts. 5, which equals gr. 1-40, and increase one drop each injection until the physiological effect is produced. Four hypodermic injections to be given daily, beginning at 8 A. M.; then at 12 M., 4 P. M., and 8 P. M.

No. 3. Used with No. 2.

℞

Aurii et sodii chlorid	grs. 2½
Aquæ dest	ad. oz. i

M. Sig.: Gtts. 3, every four hours, in combination with the strychnine solution, for the first four days.

This last prescription is used only for the moral effect, which is produced in the following manner: Five drops of the strychnine solution are drawn into the syringe, and then three drops of the gold solution are drawn in and mixed. This produces a golden yellow color, to which attention is called, and the patient is further assured as to the reality of the presence of the gold by the stain left on the skin after the hypodermic needle has been removed."

Dr. Chapman is now treating a number of these cases and will report farther in the matter. He is positive that if properly and scientifically conducted, good results can be obtained.

Books.

In the last issue of the journal we made some suggestions in regard to book buying. It may be timely to refer to the matter again, and if we can suggest an idea of value to any of our readers now collecting a library, we will have accomplished our purpose. In the first place, we are often asked what is the best work on practice to buy. If we were compelled to confine ourselves to a single work on the practice of medicine we would hardly be able to make a selection.

To the studious physician, to the man with a good foundation and a taste for the science he has chosen, to the man who has ambition to succeed, we would say begin with any of the standard works for a nucleus and then buy as many more as your means will allow. You can't have too many. We very often hear the advice given to buy always American authors. This is good advice to those who have not advanced beyond the stage of empiricism.

As practical physicians, as men who most successfully apply their knowledge to the cure of disease and most readily adopt the means at hand to the circumstances of the case, the superiority of American medical men is generally conceded.

On the other hand, we must give the credit to German and English authors for superiority in pathological learning. For

accurate description of disease, for scientific interpretation of pathological lesions, for close, careful and systematic investigation into the causes and effects of diseases, we must acknowledge they are far in advance of us. Such being the case, a serviceable library must contain selections from foreign as well as American authors. There are many works on medicine, however, by American authors which, having been compiled from the highest authorities of both continents and contain the latest researches, both in pathology and treatment, most nearly meet our requirements. The individuality of an author is lost, though, in the quotations and extracts of a compiled work, and so to the student they lack that charm he finds in a report of individual investigation and experience.

An author, even though he draws upon numerous works for facts and theories, may so embody them with his own experience and research that they partake of his individuality, and we find this to be the case with those men who have reached the summit of greatness as medical authors.

DR. W. W. DAWSON, one of the most distinguished surgeons Cincinnati has ever produced, died February 16, 1893.

He was a surgeon of national reputation. He was graduated in the Medical College of Ohio in 1850. Three years after his graduation he was chosen professor of anatomy in the Cincinnati College of Medicine and Surgery, which position he held for three years. From 1860 to 1864, inclusive, he occupied the chair of anatomy in the Medical College of Ohio. From 1864 to 1870 he lectured on clinical surgery, and in 1870 he was elected to fill the chair of surgery in place of the celebrated Dr. Blackman. In 1888 he was elected president of the American Medical Association.

NATIONAL quarantine legislation has resulted in little good but the agitation.

THE Kansas war, if so high-sounding a name may by courtesy be applied to the recent embroglio, if it had been continued many days longer, would have resulted in several deaths, even though no conflict of arms had occurred.

The exposure to cold and storm, and the nervous strain, were too much for the men, unaccustomed to a soldier's life, and many of them suffered severely in consequence.

Several cases of prostration, from the fatigue and exposure of prolonged guard duty, were brought into the improvised hospital. Rheumatism was a common complaint among the men, and colds and sore throats affected the majority. Few of the men had blankets, and they were all compelled to sleep on the floor in the corridors of the state house, if they had an opportunity to sleep at all.

Pan-American Medical Congress—Section of Military Medicine and Surgery.

The following gentlemen have been duly appointed members of the advisory council of this section:

Colonel Louis Read, M.D., surgeon general, N. G., Pa.; Newton L. Bates, M.D., medical director, U. S. N.; J. R. Tryon, M.D., medical inspector, U. S. N.; Lieut. Col. Eustathius Chancellor, M.D., medical director, N. G., Mo.; Brvt. Lieut. Col. A. A. Woodhull, M.D., surgeon, U. S. A.; Major Jos. H. Corson, M.D., surgeon, U. S. A.; Major Geo. Henderson, M.D., medical director, N. G., D. C.; C. N. Hoagland, M.D., ex-surgeon, Ohio Vols.; Bedford Brown, M.D., ex-surgeon, C. S. A.; H. C. Goodman, M.D., ex-surgeon, U. S. Vols.; Melancthon Storrs, M.D., ex-surgeon, Conn. Vols.; O. D. Ball, M.D., pension ex-surgeon, Albany, N. Y.; Captain H. O. Perley, M.D., assistant surgeon, U. S. A.

GEO. M. STERNBERG,
Deputy Surgeon General, U. S. A., President of Section.

ARTICLES are appearing in the MEDICAL JOURNAL from time to time, explaining what is requisite for a doctor's success in the profession.

The prevalent opinion is that success depends upon high manners, cleanliness and good clothes. It is true that these perquisites carry us up among the four hundred. Ringing the silver door-knobs may bring us influence and wealth. Is this what we mean by success in the medical profession? The physician is only a success who is capable of high thinking, who has an honest purpose in perpetuating human life, who understands the tissues of the human organism and their functions, who has the nature of diseases and their remedies incarnated in the cells of his brain, and whose sympathies tend toward the relieving of diseases found in every class of humanity.

It is not man's clothes nor his manners, but his personale, that brings him success.

Every physician is a success who has the wisdom to understand medicine as a science, and is willing to devote his life to the work.

Honor in his profession, and respect of society will drift to him as a natural consequence.

PTOMAINES and leucomaines are the products of undigested foods which enter into the serum of the blood and produce the majority of our vague feelings in the form of slight ailments, which people term biliousness or malaria, and for which the majority of people take quinine. Quinine may be an antiseptic, but there are better antiseptics than quinine, which more effectually destroy the ptomaines, such as the salicylate of sodium, napthol or the salicylate of bismuth, or napthol and the salicylate of bismuth may be combined. Either of the above remedies are far more effectual in the treatment of vague ailments which are produced by toxic elements in the blood, set up by fermentation, than the constant use of quinine or the habitual taking of physic. Instead of taking compound cathartic pills, why not take a capsule of fel bovis, which will accomplish the desired effect without debilitating the system. It has also antiseptic properties and is a sufficient stimulant to the mucous membrane to keep up peristalsis and thereby maintain a healthy action by way of elimination through the bowel.

ARE we becoming more fearful of death than our fathers? Decidedly yes. Never was an age of the world when so much anxious thought was expended in contriving means of excluding the common enemy of all the living. Thousands of persons are to be found who drink no water that has not been specially treated, strained and purified to exclude "germs". One of the giant industries of the day is the bottling and transportation from springs in Germany and elsewhere of "table water" to every part of the inhabitable world; and the ingenuity of "sanitary engineers" is taxed to the utmost in planning how they may quiet the apprehensions of their clients. The "sanitary plumber" is to-day a more important personage than the architect. The world is, as it were, hypnotized by medical and sanitarian terrorists and alarmists till men are afraid to breathe the air of heaven, save through sanitary respirators; and one need not be surprised if after a generation or two a man will not venture forth from his home without a panoply of devices for protecting his precious life against "germs," till, like the fully-equipped knight of Mediævial time or the last development of the war ship, he is made absolutely impregnable at the expense of his power of locomotion.—*Twentieth Century.*

Pruritus.

The following has proven signally useful in some cases:

℞

Sodii salicylat.....℥ ii
Glycerine .....
Listerine.....aa...℥ vii

M.

—*Clinique.*

Report of a Case.

BY S. G. STEWART, M.D., TOPEKA, KANSAS.

Mr. President and Members of the Academy:

The following case was under the care of my friend, Dr. L. Y. Grubbs, and was first seen by me on December 25, 1892, in consultation with Dr. Grubbs.

The patient is Joseph H. E. C——; residence, Topeka; æt. 42 years. The history, as given by himself and family, is as follows: Six years ago, when in apparent health, noticed enlargement of abdomen. On seeking medical advice, was told that he had ascites. He was promptly treated by hydrogogue cathartics, and in about six months from the first appearance of trouble it had disappeared, but ill-health continued. Attended to his business, but with greater effort than before the dropsy. Walking caused great weariness. Patient had been a very strong man, and very careless about protecting himself from inclement weather—would drive in cold weather without proper wraps. Was treated for locomotor ataxia in another city. Frequently showed dropsical symptoms. About one year ago noticed defective vision in left eye; this gradually increased until almost total blindness resulted in this eye and imperfect vision in the right eye. During this year his strength failed rapidly. Dropsy increased, becoming general. Suffered much with indigestion. Five months before death, gave up business. He was very hard to control concerning his diet, and would not obey orders until a short time before death. Four days before death, had a severe convulsion. This was followed two days later by another violent convulsion, followed by light spasms, coma, with occasional brightness of mental faculties. Deeper coma of about twelve hours duration. Died January 22, 1893. Dr. Grubbs stated that urine had been of low specific gravity—large amount of albumen casts, granular epithelium, pus, acid reaction—from his first examination of the case. The patient gave a history of passing a large amount of urine at one time. This was followed by a diminished quantity. During the last few months of his life the quantity was less than normal, unless stimulated by some diuretic. Under the use of infusion of digitalis the quantity was increased from one pint in twenty-four hours to nine pints, but during the last three days kidneys failed to respond to medicine.

The autopsy was made a few hours after death by Dr. D. F. Rodgers and myself. The kidneys, ureters and bladder were taken for examination.

The kidneys were a little larger than normal; capsule adherent. The mucous membrane was found very much congested and dotted with extravasations of blood, and the epithelial surface almost destroyed. A quantity of pus was found in the pelvis of kidney; the ureters were dilated in same portions, and thickened and narrowed in others. These ecchymotic extravasations were found in the ureters, and the entire surface of the bladder was covered by them. The mucous membrane was relaxed and swollen; the color a grayish white. The pelvis of the kidney was large, thickened, white or slate color, with many points where the capillary vessels could be traced. The condition of the bladder ureters and kidneys are especially interesting because of the similar diseased conditions of all these parts. It was our opinion that the pyelitis had been the primary disease, and was the cause of the intrinsic renal lesions that are to be seen under the microscope, viz.: the diffuse parenchymatous degeneration. The thickened bloodvessels point to another condition of great interest. These pathological specimens I present to the society for examination. The microscopic specimens before you were prepared by my friend, Dr. Gilbert, and clearly show the degeneration of the kidneys, and, when studied, explain very clearly the cause of death.

IN young girls and maidens, troubled persistently with leucorrhœa and have nervous phenomena, for which they consult you, suspicion self-abuse.

Californiana No. 1.

BY WALTER DAVIDSON BIDWELL, M.D.

Under this rather pretentious head I will give a few details that are likely to be of interest to one living in the Missouri valley. Much of this information is doubtless contained in encyclopædial articles which I have not read, and comparatively few take the trouble to look them up, even when it would be to their benefit so to do.

Presuming, then, that you are as ignorant as I was a short time ago, I will give a few facts as to San Francisco.

This city of over three hundred thousand inhabitants has anything but a level site.

If a piece of canvas, six or eight miles square, were to be propped up all along its western side by poles from five to seven hundred feet in height, its surface would resemble that on which the city is built.

The hills on which the finer residences are situated are steeper than those in any other city in the country. While the lower part, occupied by wholesale business, is the old sandy beach, extended by made land to the end of the wharves, where deep water is reached. The city being situated on a peninsula, has the whole Pacific ocean west of it, a narrow channel leading out through the Golden Gate on the north and the Bay of San Francisco, varying from two to ten miles in width, on the east. This accounts for the fact that the thermometric variation is limited, while the frequency and persistency of heavy fogs is exceptional.

During the summer months high winds occur daily, and even in winter are far from rare. Add to this that the slight variation in thermometric condition has led most people to construct their houses so that draughts are possible, and make sufficient provision for warming them, that the vast majority of houses are of wood, brick and stone becoming damp and chilly from the excess of moisture; and one can easily see that everything conduces to that disturbance of circulation which brings on catarrhal conditions of all the mucous membranes.

San Francisco is not the place for a health resort. Its climate being largely responsible for the number of medical schools on the coast and the hundreds and thousands of doctors that here seek a livelihood. However, these same high winds and this sea air, which are so inimical to the mucous membranes, do their part in freeing the air of micro-organisms, so that all in all the death rate is not so excessive as might at first be expected.

San Francisco, however, is only a small part of California, the state reaching from a point about as far north as Hartford, Connecticut, to as far south as Charleston, South Carolina, and from the sea-level to the eternally snow-capped peaks of the Sierras. Moreover, these frequent mountain ranges and large bodies of water, varied with sandy plains and extensive forests, aside from the question of latitude or altitude give to each little district its own peculiar climate. So one need not be surprised that at the same season California is furnishing one portion of its inhabitants with cold, rain, sleet and snow, another portion with gentle showers, while elsewhere the tourists are sitting in the sunshine breathing in an atmosphere well suited to the most delicate lungs.

Once in a year or two a real warm day may be experienced in San Francisco, but the vast majority of people there wear heavy flannel underwear and woolen suits or dresses the year round. Furs are in order during the twelve months for evening wear, and gloves and shoes must be thick and warm. Fur hats or caps are rare, and white dresses for out-door wear almost a curiosity. The glare from the sky and artificial stone sidewalks is very trying. The high winds cause an abundance of fine dust to be constantly in circulation, and as a result the oculists are legion. With its large foreign population, especially of Chinese and Japanese, its theaters, clubs, excellent street-car system, its large park, beautiful bay, and dashing society, San Francisco offers many charms to the tourist and sight-seer. As the metropolis of the coast it is attractive to busi-

ness men. But as a residence, as the place for a home, the common verdict is not in its favor.

In the suburban towns, on the contrary, are many places comparatively free from the objections urged against San Francisco. I say suburban towns for it is not in the city nor just outside its limits that these places are to be found, but from seven to thirty miles distant.

These, however, are entitled to a separate consideration, and will be taken up later.

Oakland, California, 1155 Broadway.

Treatment of Acute Bronchitis.

Simple cases usually recover (Dr. Canfield, *Therap. Gazette*) under the use of a good expectorant mixture, such as —

℞

Ammon. muriat.....℥ ss
Mist. glycyrrhiz, co.....℥ iv

M. Sig.: Dessertspoonful every three or four hours.

When the secretions are abundant and not easily coughed up, a turpentine emulsion is excellent. For instance:

℞

Ol. terebinth.....℥ ij to ℥ iij
Muc. acaciæ.....q. s.
Aq. cinnamon.....℥ i
Aquæ, q. s. ad.....℥ vj

M. Sig.: Tablespoonful in water every four hours.

Sometimes the cough is of such an irritating character that expectorant measures avail little. Some narcotic must then be used. Codeine has not the disadvantages of morphine, and is efficient. A good combination is:

℞

Codeine sulphat.....grs. viij
Syr. prun. virgin.....℥ viij

M. Sig.: Tablespoonful in water three or four times per day and at bed-time, if necessary.

THERE are thirty-three ophthalmologists located in Denver besides other specialists.

The Question of Maternal Impressions.

Dr. Williams read a paper at the last meeting of the New York State Medical Association thus entitled. As usually considered, he said the question of maternal impressions was: In what measure, if at all, could mental states of the mother operate to alter the potentialities that entered into a new being at the moment of conception? This question, however, involved two that were radically distinct, viz.: (1) To what extent could mental states of the mother affect the fœtus indirectly? and (2) to what extent could they affect it directly? The essential element was the existence of a direct mental transfer of energy from the mother to the fœtus. Modern biology had taught us to look upon every organism as a member of an endless series of organisms, all subject to a few universal laws. If this capacity of mental transfer existed at all, its operation could not be confined to any single race of beings. We must decide how far the alleged law of maternal impressions was in harmony with known biological laws. In the mother the law of self-preservation yielded to the law of race preservation; all her instincts, habits and capacities were made subservient to this. But if the theory of maternal impressions was true, one capacity, an uncontrollable action of the mother's plastic mind, hung incessantly as a menace over the head of the new being. This view was not in accordance with the belief that each law must be in harmony with every other law throughout the universe. Why should the operation of this alleged law of maternal impressions be restricted to the child *in utero?* When the child was two years old it was still as dependent upon some other being for its nutrition as when it lay in the uterus, and it was probably the source of far greater maternal solicitude, so that the same maternal state should still be operative, though perhaps not to the same degree. This law of maternal impressions should be operative upon the new organism during its entire period of development. As this theory was incompatible with other and wider laws, the

author rejected it. He admitted, however, that these were simply theories, and that experience must bring the final verdict. In conclusion he expressed the opinion that a truly demonstrative series of cases on this subject would be the most momentous single contribution to biology and psychology that had appeared since the dawning of the Darwinian epoch.—*N. Y. Med. Jour.*

Vibrations for Nerve Disease.

In a clinical lecture of the great Professor Charcot, given in the *International Medical Gazette*, January, this subject is discussed. The lecturer says: "For many years I have learned from patients, who were attacked by paralysis agitans or Parkinson's disease, that they felt much better after long trips by rail or by carriage. During these journeys they got rid of those painful sensations they had at home, and this improvement persisted for some time afterwards. Therefore I have constantly told my students that it was possible that some good could be obtained in Parkinson's disease by movements similar to those of a moving wagon or train.

"Dr. Jegu then offered to construct an apparatus to carry out these ideas, and, aided by M. Solignac, an engineer, he made an arm-chair which has a special mechanism which causes it to oscillate rapidly in both its anterior and lateral axis. These combined and varied movements produce a trepidation or trembling that is similar to that felt in a running wagon. We have tried eight cases — six men and two women. An amelioration takes place after the fifth or sixth sitting. It is mostly of use for the painful sensations in paralysis agitans. As soon as the patient gets off the 'trembling arm-chair' he feels lighter, and the stiffness is gone. He can walk much better, and he is able to sleep at night. This last is the most important movement. Except in one case the trembling of the patient was not changed. This improved state is always felt the same day of treatment, so that it should be repeated every day; but in this hospital the chair is put in motion by our electric motor, which we use three times a week for our static machines, and, indeed, even on three days a week we have not been able to give more than a quarter of an hour to each patient. This should be increased and given daily, for the results are important in this malady, where you know we have so far not been able to find anything to give relief.

"My former *chef de clinique* has not contented himself with the 'trembling chair' in Parkinson's disease only, but has sought to find other applications for vibration. He has had an apparatus constructed which is destined to give intense vibrations to the cranium. This apparatus is a sort of helmet with separated blades that looks like the 'conformator' used by hatters to get the shape of the head for hats. By a simple device this goes over any head. It has a plate on top on which is placed a small electric motor, moved with an ordinary battery. This gives six hundred revolutions a minute, works easily and regularly, producing a uniform vibration which is transmitted to the cranium. The whole head vibrates under it, as you can see by placing a hand on the mastoid region. When the apparatus is in motion, you hear a soft humming noise, which should be taken into account in studying the results obtained by it. The number and extent of the vibrations can be regulated.

"This 'vibrating helmet,' put on the head of a healthy subject, is well tolerated, and does not cause any annoyance. In seven or eight minutes a sensation of numbness is experienced all over the body, and the person becomes sleepy. Given for ten minutes at 6 P.M., a night of calm sleep will follow. Eight or ten sittings cure insomnia when it is not associated with any organic brain disease. In three cases it was found very efficacious in sick headache (migraine). Three persons having neurasthenia were treated; two were cured, while the third did not continue the treatment, although improved. This form of vibration acts in neurasthenia by taking away, first, the cephalic symptoms, vertigo and the painful frontal constriction

which is so characteristic of this affection. What seems to show that these vibrations have a peculiar action on the brain is that in one case, where the spinal symptoms were predominant, the usual weakness of the inferior members and the sexual impotence disappeared without having to make any vibrations down the spinal column. Static electricity had failed in this patient. It cannot, therefore, be any longer doubtful to you that vibrations of this nature are a powerful sedative to the nervous system." —*Maryland Medical Journal.*

A Unique Promotion.

Dr. Mary Putnam Jacobi was elected as president of the neurological section of the New York Academy of Medicine at its last meeting, to succeed Dr. Greame M. Hammond. Mrs. Jacobi is the first female physician ever elected to the distinguished position of the presidency of a section in the New York Academy since its foundation, now more than twenty-six years.

This is an honor deservedly bestowed on one who richly merits this unique and distinguished promotion; for, though Mrs. Dr. Jacobi is no nerve specialist, her knowledge of diseases of the nervous system is deep and thorough.

It may be said of this distinguished medical matron that, while progressive and aggressive as a writer, teacher and practitioner of the healing art, she yet preserves to a high degree those feminine charms and graces so peculiar to the refined and cultured lady.—*Medical and Surgical Reporter*, Jan. 21, 1893.

THE Medical Society of the Missouri Valley will be held in St. Joseph, Mo., Thursday, March 16, 1893, at 9:30 o'clock A. M.

PROGRAM.

1. Present Status of Galvano-Cautery in Nose, Pharynx and Larynx.—Dr. Geo. Wilkinson, Omaha, Neb.

2. Fissure of Anus in Babies.—Dr. Daniel Morton, St. Joseph, Mo.

3. Inflammation in Region of Appendix Vermiformis.—Dr. Geo. Nash, Maryville, Mo.

4. Venesection in Obstetrics.—Dr. W. B. Dewees, Salina, Kas.

5. Paper—title not given.—Dr. M. F. Weymann, St. Joseph, Mo.

6. Sanitation and Quarantine.—Dr. F. S. Thomas, Council Bluffs, Iowa.

7. Peritonitis, A Report.—Dr. J. M. Allen, Liberty, Mo.

8. The Lost Voice—Causes and Treatment.—Dr. Hal Foster, Kansas City, Mo.

9. Hæmostasis.—Dr. Jacob Geiger, St. Joseph, Mo.

10. Paper—title not given.—Dr. M. B. Ward, Topeka, Kas.

11. Chronic Inversion of the Uterus.—Dr. Wm. L. Brosius, Gallatin, Mo.

12. Surgical Treatment of Fibroid Tumors.—Dr. H. C. Crowell, Kansas City, Mo.

13. Genito-Reflex Neurosis and Psychosis.—Dr. W. H. Bryant, Savannah, Mo.

14. Keratitis.—Dr. T. E. Potter, St. Joseph, Mo.

15. Skin-Grafting in Malignancy.—Dr. F. B. Fiffany, Kansas City, Mo.

16. Non-Medicinal Treatment of Chronic Constipation.—Dr. S. G. Gant, Kansas City, Mo.

17. Spectacles.—Dr. P. I. Leonard, St. Joseph, Mo.

18. Use of the Forceps.—Dr. M. L. Hildreth, Lyons, Neb.

19. Empyæma—Report of Four Cases.—Dr. C. H. Wallace, St. Joseph, Mo.

20. The Neuropathic Constitution, Etc.—Dr. J. Punton, Kansas City, Mo.

21. Intestinal Obstruction.—Dr. J. M. Wilhoit, St. George, Kas.

22. Some Recent Experiences in Laparotomy Work.—Dr. Jno. H. McIntyre, St. Louis.

DR. ROBERT BARTHOLOW, of Philadelphia, has regained his health and is engaged in active practice.

Deaths Under Anæsthetics.

Gurlt reported to the last surgical congress at Berlin the following statistics of deaths under anæsthetics. They are made up from the observations of 62 operators, who anæsthetized 109,196 persons with 39 fatal results, showing 1 death to 2,800 narcoses. The following were the anæsthetics used:

Chloroform, 94,123 narcoses, 36 deaths.

Ether, 9,431 narcoses, no deaths.

Ether and chloroform, 2,891 narcoses, 1 death.

Ether and alcohol, 1,381 narcoses, no deaths.

Bromoform with ethyl bromide, 2,151 narcoses, 1 death.

Penthal, 210 narcoses, 1 death.

In 2,913 cases the narcosis lasted over an hour; in an operation for utero-vaginal fistula 4½ hours; in a case of tetanus, 9 hours. In 25 cases, of which post-mortem examinations were made, cardiac diseases were found. The author urges careful examination of the heart before administering chloroform. —*Cond. Extracts.*

Kansas Medical Society Proceedings.

(Continued from October Number.)

The president appointed the following committee of arrangements for the meeting at Topeka in 1893:

Drs. W. S. Lindsay, Reid Alexander, S. E. Sheldon, W. E. McVey and L. H. Munn.

The president appointed the following members of committee on the Stormont library: Dr. C. A. McGuire, Topeka; Dr. G. C. Purdue, Wichita; Dr. Chas. Gardiner, Emporia; Dr. C. H. Guibor, Topeka; Dr. Alexander, of Topeka, having been made permanent chairman.

Society adjourned.

W. S. LINDSAY, M.D.,
Secretary.

THE Medical Society of the State of New York has extinguished its code of ethics.

LITTLE THINGS.

THE safest plan of procedure in removing foreign bodies from the canal of the ear when well in is warm water and the syringe.

A PHYSICIAN or surgeon's liability is the same whether he gives his service gratuitously or not.

WHERE you are in doubt as to the diagnosis, examine the urine; and where you think you know, examine the urine.

THE longer I practice ophthalmology and otology, the greater I find the necessity of studying general medicine.

SYMPHYSEOTOMY has been performed a few times successfully in this country of late, and promises well.

THE *Woman's Medical Journal*, vol. 1, No. 1, is before us. It is devoted to the interests of women physicians, and is published in Toledo, Ohio. It enters the race on its merit, presents a good appearance and talks well.

TYPHUS fever seems to be getting a foothold in New York City.

SMALL-POX has appeared at different points in Illinois. Vaccinate, vaccinate, revaccinate.

THE St. Louis Medical Society refuses to admit women to membership.

The Government of Venezuela and the Pan-American Medical Congress.

Senor P. Ezequiel Rojas, the Venezuelan minister of foreign affairs, has forwarded, on behalf of his government, through the U. S. *charge 'd affairs* at Caracas, a formal acceptance of the invitation issued pursuant to the joint resolution of the United States congress to the various governments of the western hemisphere to send official delegates to the Pan-American Medical Congress. The selection of delegates has not yet been made, but the names will be forwarded at the earliest possible moment.

Pan-American Medical Congress—Section on Medical Pedagogics.

The pedagogic section will devote its attention especially to the history of the development of medical education in America.

In the papers presented by leading teachers recent advances in methods of instruction will be considered.

The art of teaching, which is regarded as a study of great interest in other branches of learning, has received hitherto but little attention from the medical profession.

The section in medical pedagogics will therefore be made a prominent feature of the Congress, and it is hoped that those interested in medical education will co-operate in the work of this section by being present and by actively engaging in the discussion of subjects presented.

Any inquiries or communications may be made through the secretaries undersigned.

J. COLLINS WARREN, M.D.,
Executive President,
Boston, Mass.

CHAS. L. SCUDDER, M.D.,
English-Speaking Secretary,
Boston, Mass.

WM. F. HUTCHINSON, M.D.,
Spanish-Speaking Secretary,
Providence, R. I.

New By-Laws of Pan-American Medical Congress.

LANGUAGES.—By-law IX. Papers may be read in any language, providing that authors of the same shall furnish the secretary-general with an abstract not exceeding six hundred words in length in either of the official languages—English, Spanish, French or Portugese—by not later that July 10, 1893: *And providing further*, That a copy of each such paper shall be furnished in either of the official languages at or before the time of the meeting to the secretary of the section, before which the same shall be read. Remarks upon papers may be made in any language, providing that menbers making such remarks shall furnish a copy of the same in either of the official languages before the adjournment of the session.

"LANGUAGES.—By-law X. All papers read either in full or by title shall be immediately submitted for publication in the transactions (special regulation three), but authors may retain copies and publish the same at their pleasure after the adjournment of the congress.

"CONSTITUENT ORGANIZATIONS.—By-law XI. All medical, dental and pharmaceutical organizations, the titles of which have been transmitted with approval to the committee on organization or which may hereafter be transmitted with approval to the executive committee by any member of the international executive committee, each for his own country, shall be subject to election by the executive committee, approved by the president, as constituent bodies of the First Pan-American Medical Congress, and each organization thus constituted shall have the right to designate as delegates all of its members attending the Congress, but no such organization shall meet at the time and place of meeting of the Congress as a district body; providing that the secretary of each such constituent body shall furnish a list of officers and a statement of the number of members of his respective organization to the secretary general not later than sixty (60) days before the meeting of the Congress, and shall forward a list of delegates chosen to reach the secretary-general before the opening of the Congress."

By the Executive Committee, February 22, 1893.

Peroxide of Hydrogen.

An open letter from Charles Marchand, chemist and graduate of the "Ecole Centrale des Arts et Manufactures, de Paris" (France), to Prof. A. Jacobi, M.D., of New York. Published by the *Archives of Pediatrics*, January, 1893:

"My attention has been called to an article read before the 'American Pediatric Society,' at Boston, May 4, 1892, by Prof. A.

Jacobi, M.D., and published in the December number of the *Archives of Pediatrics*. This article is entitled, 'Note on Peroxide of Hydrogen,' and purports to be a 'warning.'

"The learned writer at the beginning enters into a diatribe regarding proprietary medicines of all kinds, and endeavors, by an extravagant list of diseases, (many of which have never been mentioned by me as being connected with the subject,) to convey the impression that peroxide of hydrogen (medicinal) is a 'nostrum,' and that the manufacturer of this article is to be classed among 'quacks and patent medicine venders.'

"He then commiserates the 'immense number of unsophisticated medical men all over the country for their relative inability' to successfully 'cope with the misery surrounding them,' and intimates that the 'trash' written regarding peroxide of hydrogen (medicinal) is not published for his hearers, who, being writers and teachers, are above the common horde of medical practitioners; with this compliment to his hearers and most uncomplimentary reference to an 'immense number' of his professional brethren, Dr. Jacobi proceeds to mention several cases of diphtheria, which, having been apparently greatly relieved by the use of peroxide of hydrogen (medicinal), finally were cured under the use of lime water as a spray and wash.

"The inference drawn by the writer of the article in question is that the peroxide was an 'irritant' and had been of more harm than good.

"It is not my province as a chemist to enter into a medical discussion with the learned doctor, but I would like to ask if, in his opinion, a case of diphtheria can be treated successfully with lime water only, and whether in the case he cites it is not possible that the peroxide treatment was an important element in the recovery of these patients. I would also inquire whether the intemperate and in some instances personal allusions to myself and the preparation which I manufacture, are in all respects the outcome of professional investigation, and not the result of a desire to advertise himself by discrediting a remedy of which the therapeutic value has been proved by thousands of physicians, who, though they may be 'unsophisticated' from Dr. Jacobi's standpoint, are nevertheless known as eminent and honored professional men all over the world.

"The drift of this article is seemingly an attempt to prove that Marchand's peroxide of hydrogen (medicinal) is injurious.

"In confutation of this, I append herewith, in as concise a manner as possible, the experience of a few prominent physicians whose statements may be taken as conclusive in the sense that they are learned and talented professional men, the equals if not the superiors of the writer who challenges their experience, after having undoubtedly read their opinions, for every word I quote here has been published, and forms a prominent part of the medical literature of the day.

"In confirmation of my sincere belief that the claims made by me of the harmless character of my medicinal peroxide of hydrogen are true, I am willing to submit myself to a thorough test upon my own throat by spraying it with a twenty-five per cent. solution of Marchand's peroxide of hydrogen (medicinal) instead of a five per cent. solution, as alleged to have been used by the learned doctor, for the same continuous number of days mentioned by him; and if any ulceration appears, or if the repeated applications of the remedy 'does give rise to actual diphtheria,' as he states may be possible, then I am willing to acknowledge that he is right. This test may be made at any time with the utmost publicity.

"I make this proposition in good faith from a scientific standpoint, and will expect Dr. Jacobi to make the test in the same spirit, or acknowledge that he does not desire to do so."

A REPRESENTATIVE of Fairchild Bros. & Foster called on us this week and left samples. Fairchild's essence of pepsin is an old friend and always welcome. We notice also some new preparations which promise good results.

Association of Military Surgeons, National Guard, U. S.

At a recent conference of some officers and members of the Military Surgeons' Association held in Chicago, the change of place and time for the third annual meeting was discussed in all its phases, and it was the unanimous opinion of all present, as well as a large number of members and surgeon generals from various states, who expressed their views through correspondence, that the next meeting of the Association of Military Surgeons of the National Guard of the United States should be held at Chicago instead of Washington, D. C., and Secretary Dr. E. Chancellor, of St. Louis, has had his hands full notifying members of the change and making out the details of program, entertainment, accommodations, etc., that need to be carefully looked after. Dr. Senn, the president, has, with the secretary, fixed on what the general scope of the annual convention will be, basing it largely on the admirable arrangements perfected for the meeting in St. Louis last spring. The gathering will be held on August 8, 9 and 10. On the morning of the first day the business sessions will be held in the upper amphitheatre of Rush Medical College, Chicago, and in the afternoon there will be a clinic conducted at the same place by Surgeon General Joseph D. Bryant, of New York; Surgeon General J. D. Griffith, Kansas City; and Surgeon General Nicholas Senn, Chicago. At night there will be receptions and private entertainments at various parts of the city. On the second day, August 9, the Association meeting will be held in a huge tent, furnished by the Columbian Exposition in the World's Fair enclosure. Various hospital tents and military appliances will be given practical application on the grounds by a detachment from the United States army. On the second night there will be no formal entertainment, except theatre, lake-shore and and sight-seeing parties. On the third afternoon, August 10, there will be a final session in the World's Fair grounds, concluding with a banquet in one of the club houses at night.

It has also been decided that the International Military Medical Congress shall be postponed to 1894, and it will meet in Washington, D. C.

The papers to be read will include the views and experience of some of the ablest medical men in the country, and will cover every form of army surgery and sanitation.

The present officers are:

President.—General Nicholas Senn, Chicago.

Vice-president.—Maj. Nelson H. Henry, New York.

Second vice-president.—Lieut. Col. C. Meredyth Woodward, Tecumseh, Mich.

Secretary.—Lieut. Col. Eustathius Chancellor, St. Louis.

Corresponding secretary.—Lieut. Ralph Chandler, Milwaukee, Wis.

Treasurer.—Col. Francis J. Crane, Denver, Colo.

In a letter Col. Charles R. Greenleaf, honorary president of the Association and deputy surgeon general, United States army, says that the model army hospital is now in the hands of the builders. At the time of the proposed meeting but little of the working material of the medical department of the army will remain in Washington. There will also be a national guard encampment in Chicago from August 5 to 20. For this reason and the cheap rates and cosmopolitan attendance the change to Chicago was made, says Col. Greenleaf. Surgeon General George Henderson, national guard of D. C., Washington, D. C., in a letter to President Senn, approves of the change of place under the circumstances.

In all probability a military and naval medical journal will be issued under the auspices of the Association for the publication of such professional papers referring to the soldier and sailor as could not appropriately appear in the established periodicals. —*Weekly Review.*

READ the new advertisements and don't forget the old ones. They are all worth reading.

Cocillana—An Interesting Addition to the Materia Medica.

Respiratory inflammations always form a large proportion of the physician's cases. A Bolivian remedy which gives promise of much therapeutic efficacy is Cocillana, which was introduced a few years ago through the researches of Professor H. H. Rusby, the eminent botanist.

Experiments were made with it by many medical investigators, who found its action very satisfactory in catarrhal inflammations of the respiratory organs, in coryza, hay asthma, bronchitis, acute and chronic, influenza and pneumonia.

It possesses also laxative and purgative qualities, and has been employed successfully as a substitute for ipecac and amorphia in catarrhal conditions.

Parke, Davis & Co., who introduced the remedy to physicians, will supply reprints of articles affording information concerning its therapeutic application, and invite the medical profession to test its virtues further by clinical experiment.

They have after much difficulty obtained an ample supply of it, and will be glad to afford any facts desired concerning this or any other of their new remedies for respiratory affections.

Thiol in the Treatment of Burns.

Bidder (*Archiv fur Rhinishe Chirurgie*) says that in treating burns a dressing should be selected which has the following qualities:

1. Should not require frequent changing.
2. Relieve pain.
3. Act as a drying substance.
4. Harden the new skin.
5. Hinder the growth of micro-organisms which may have gained entrance to the wounded parts.

The remedy which he has found to possess all these qualities is Thiol, which may be used in two forms—liquid and powder.

In burns of the first and second degree, where the blebs are still intact, it is only necessary to brush the burned area with equal parts of liquid Thiol and water, and cover with wool. At the end of eight days the dressing should be changed, and again reapplied if the blebs have not healed. If the blebs have been ruptured and the corium exposed, all loose skin should be cut away and the burned area carefully cleaned; it should then be brushed with liquid thiol, and powdered with salicylic or boric acid, and then with powdered thiol, and the whole covered with vaseline, cotton wool, and bandaged. As a rule, one or two dressings are necessary before the wound has healed.

In Selected Cases.

I have used Sanmetto in selected cases of urethral inflammation, cystitis, frequent and painful micturition with scanty urine, etc. I find it a good remedy in such cases; soothing and healing in its action, prompt and efficient. I am pleased with it.

W. H. RIGGS, M.D.,
Springfield, Me.

DR. MONTAGUE GUNNING used a solution of chloralamid with potassium bromide in two cases of sea-sickness with most satisfactory results. The first case was that of a gentlemen who previously had never suffered from the affection. After the vessel had left land about three hours, he began retching and continued doing so for three hours. Dr. Gunning then prescribed the chloralamid solution, which gave him immediate relief, bringing on refreshing sleep, from which the patient awakened practically recovered.

The other victim was a lady who had suffered for hours, but who slept for an hour after one dose of the remedy, and was not again troubled with sea-sickness. The author was so favorably impressed with the action of the remedy that he hastened to call attention to it in the *British Medical Journal*. There is now a good quantity of evidence of this kind.

Chronic Gout.

Mr. H. L. has been a sufferer of gout for a number of years. His attacks come irregularly, and several joints are involved. He also suffers from dyspepsia, palpitation of the heart, insomnia and other nervous disturbances. His pain is not very severe, but severe enough to keep him from work. His attacks of gout have lasted as long as three months, but since he has taken Henry's Tri-Iodides he is able to get around much sooner.

Verrhus Clemiana.

Verrhus Clemiana is a compound fluid extract of equal quantities of upright virgins bower, black alder, white ash and smooth shoe make. Incorporated with it is one-eighth of one per cent. of venanatic acid, which is obtained from rhus venanatu. I have been using the verrhus clemiana for three or four months, and have obtained more satisfactory results from its use than any remedy I have ever used. In one case of profound puerperal septicæmia I obtained almost magical results. In such cases it should be used as follows:

Verrhus clemiana .....
Syr. sarsap.....aa..℥ iij
M. Sig.: Teaspoonful every two hours.

For the tympanitis, turpentine stoupes should be used. Extreme prostration should be met with brandy, etc. I have used it in several cases of scrofula with a variety of local manifestations, generally in teaspoonful doses, some times combined with the same amount of syrup sarsaparilla, and invariably obtained better results than from any other remedy I have ever used. I am satisfied it is one of the very best remedies in secondary or tertiary syphilis, eczema and all chronic cutaneous diseases. In small doses it will overcome almost all forms of constipation, and keep the bowels soluble and natural. It should be at the command of every physician. It can be had at Swift & Holliday's Drug Co., at wholesale or retail, in Topeka, Kas.

G. W. SHELTON,
Webb City, Mo.

TRIONAL, under quite recent clinical tests, is found to have a special value in uncomplicated agrypia or wakefulness with a certain amount of excitement. In these cases it is said to have acted promptly and effectively in doses of one to two grammes. Trional is useful also in convalescence from the abuse of cocaine and morphine. Some of the reports state that doses of two grammes would usually procure for these patients a sleep of from seven to nine hours duration. According to a recent report of Boettiger, dementia with hallucinations was very favorably influenced by Trional. The same writer reports thirty-three cases of insomnia, with physical disturbances in the insane. These were primary or secondary, or were accompanied by moderate delirium or motor restlessness. Doses of one to two grammes of Trional promptly induced a sleep of six to ten hours. The full reports of the cases referred to was published in the *Berl. Klin. Woch.*, No. 42, 1892.

For Sale.

A bran new home, costing $4,000, in a live eastern Kansas railroad town with a good country practice thrown in. Can be had for $2,000 on easy terms. Reason for selling, poor health of physician.

Also drug store with home. All valued at $3,000. Can be had for $1,750 on easy terms. It is in a county bordering on the Missouri river.

These are first-class locations, and cheap. For either, apply to "X," care of KANSAS MEDICAL JOURNAL.